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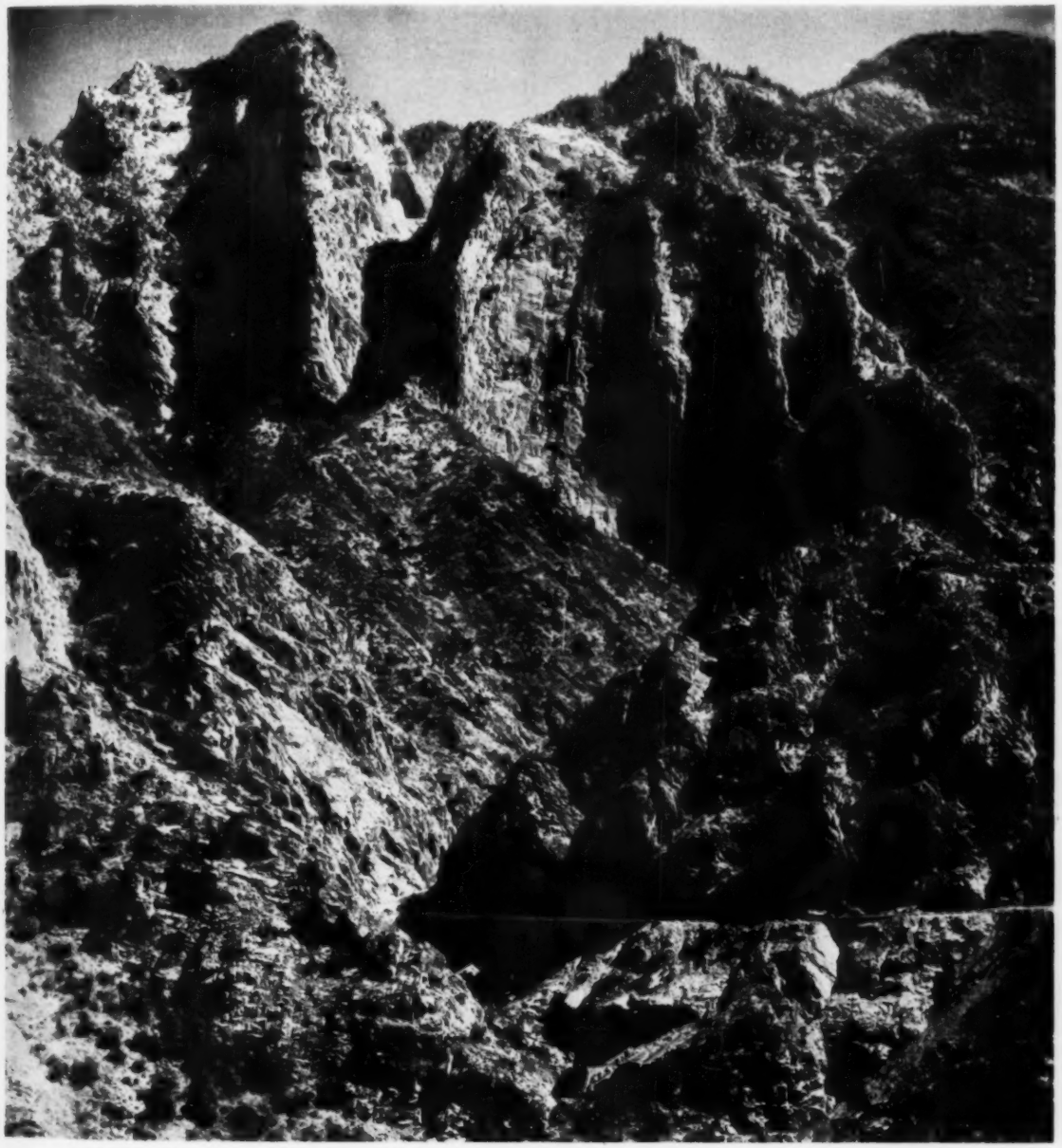
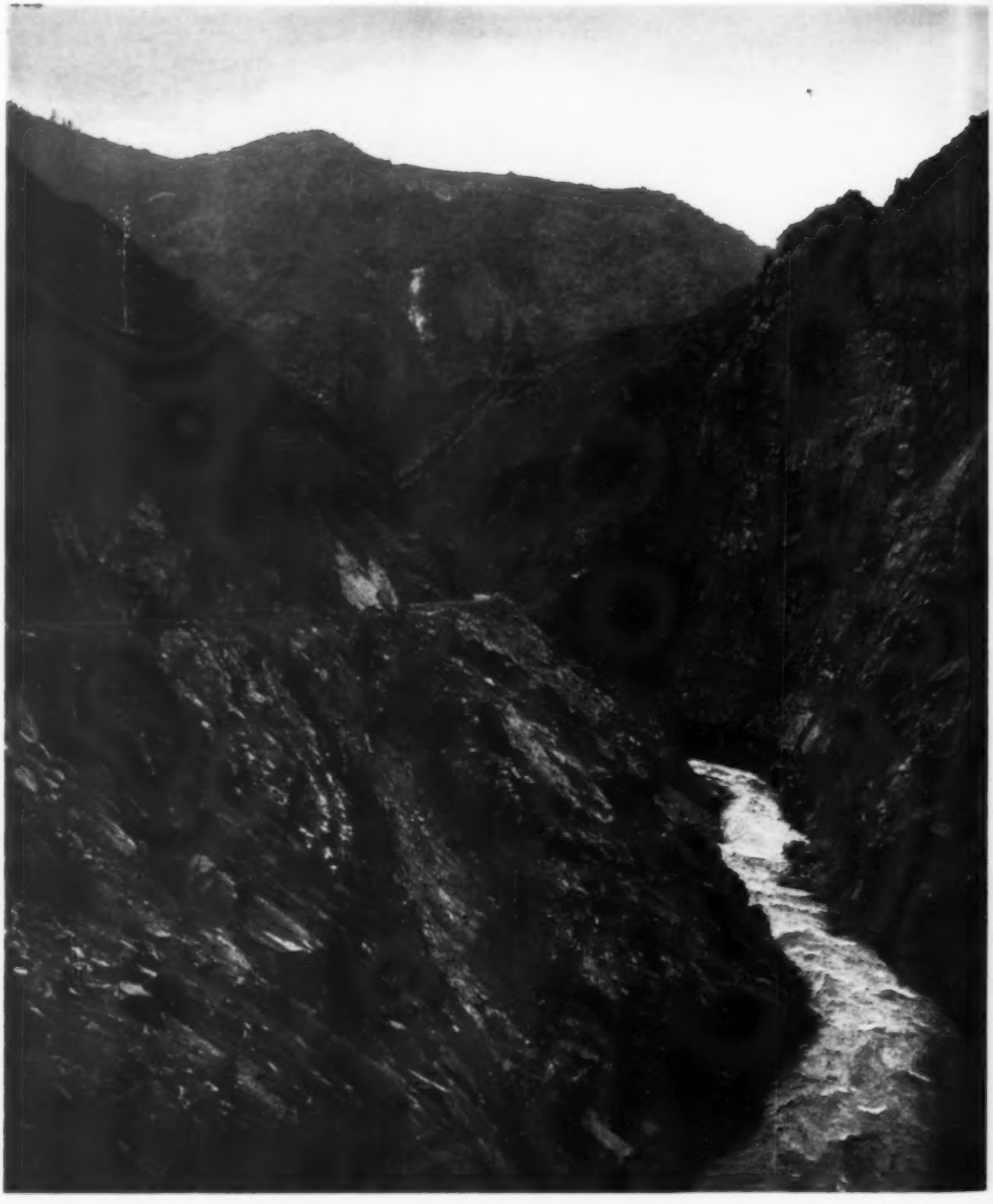


Photograph by Padilla Studios

THE WAY IN TO THE KINGS CANYON NATIONAL PARK BY THE ONLY ROAD
Looking Up



Photograph by Laval Company

THE WAY IN TO THE KINGS CANYON NATIONAL PARK BY THE ONLY ROAD
Looking Down at the South Fork

Most Wonderful of Wildernesses Kings Canyon National Park

Another Reason for Winning the War

BY ROBERT STERLING YARD

THE Kings Canyon National Park was created March 4, 1940, just in time to become the greatest scenic inspiration in this country's greatest need, for war was declared on December 8, 1941. The bill to make a national park of part of what many believe the most stately of all our living wildernesses and by far the loveliest to look upon was first introduced in Congress in 1881, requiring fifty-nine more or less tempestuous years in the actual making.

It was six years before that when John Muir first saw it, tramping up the Kings from San Francisco.

A national park in the Kings was one of the dreams of Stephen T. Mather when he became Assistant to the Secretary of the Interior. That was well before he organized the National Park Service in 1916 and became its first director. Whether or not he had seen the Kings country while still an undergraduate in the University of California, I have forgotten; but to me he was more enthusiastic about it even than about his beloved Yosemite.

He had read and reread all that John Muir, its first explorer and prophet, had written, and felt himself called upon to pick up the cause which Muir had recently laid down by his untimely death.

All this Mather told me, and much besides, upon my joining him in Washington in 1915 as his personal adviser and publicity manager.

Naturally this country was his choice for the Mather Mountain Parties which he began even before his directorship. I was a member of the second party, the first being experimental. This was in late summer, 1916.

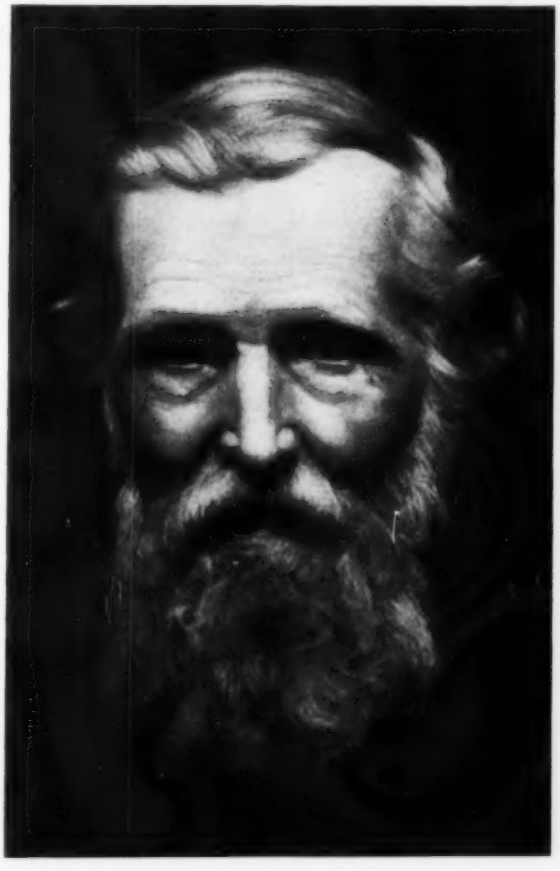
A year before that, Mather and I, jogging together on high mountain trails from his first national park convention, in Berkeley, to Glacier National Park in northwestern Montana, had discovered that the National Park System must be recognized as "The People's University of Creation."

The Story of Creation

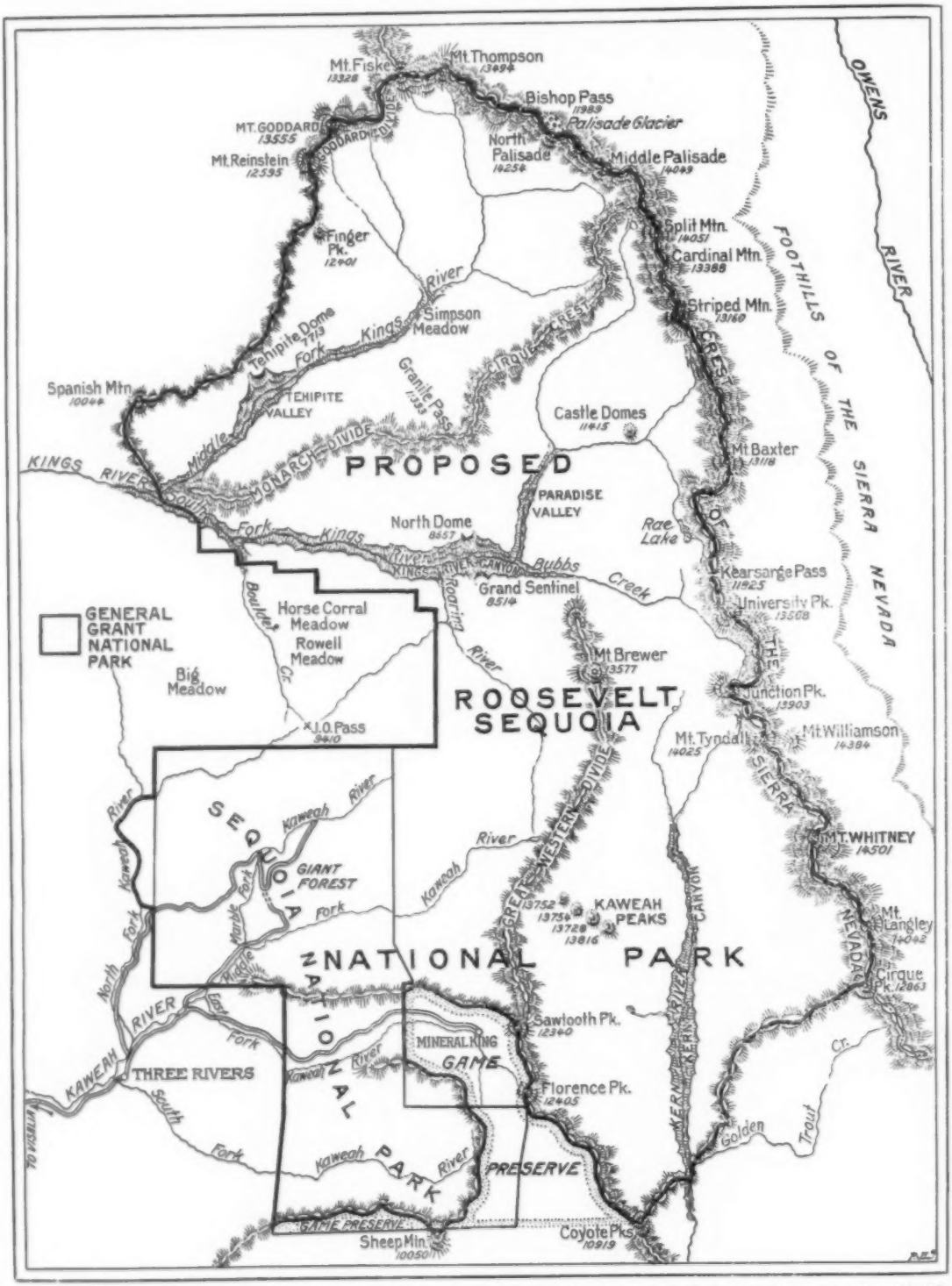
Looking thousands of feet into canyon depths on every side, seeing hills, valleys, precipices, mountains, streams, rivers, and lakes as the leavings of torrents and glaciers millions of years old, the geological history of the Sierra was here found written in words so descriptive and eloquent that all could read and understand at a glance. Also we first realized that the ultimate objective of the national parks was the clear revelation to all alike of Nature's objects, methods, and vast achievements. Here was the Story of Creation carved in everlasting rock!

And in this later journey into the very heart of the Kings, we made still another primal discovery, namely, that right here was scenically the most extraordinary of this wonderful land's supremest landscapes! Not one of us doubted that.

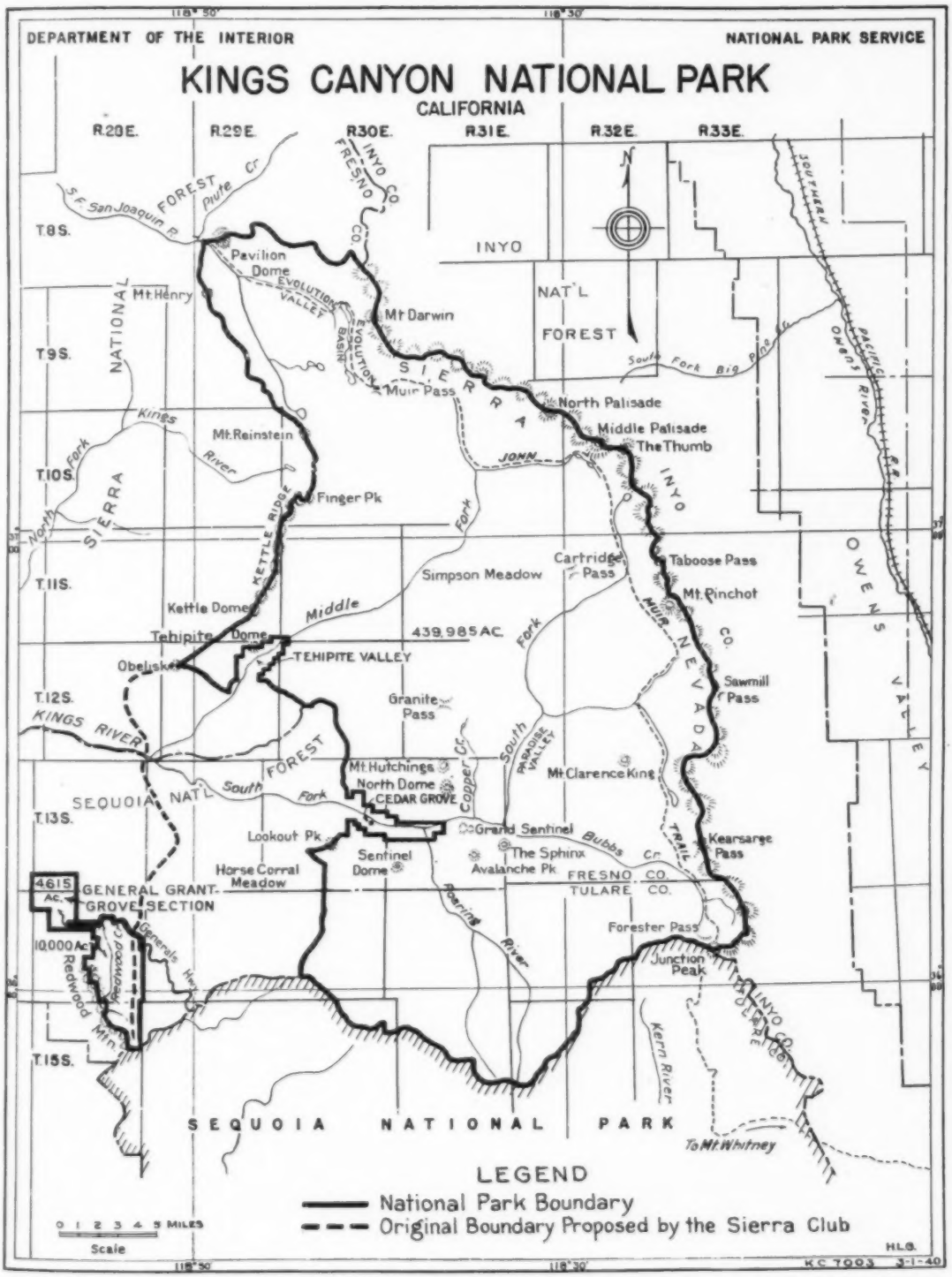
From then to his death in 1929, to make this country a national park was Mather's most persistent project. It was a long hard fight. Bill after bill in Congress failed under attempted amendments to open to commercial use the national



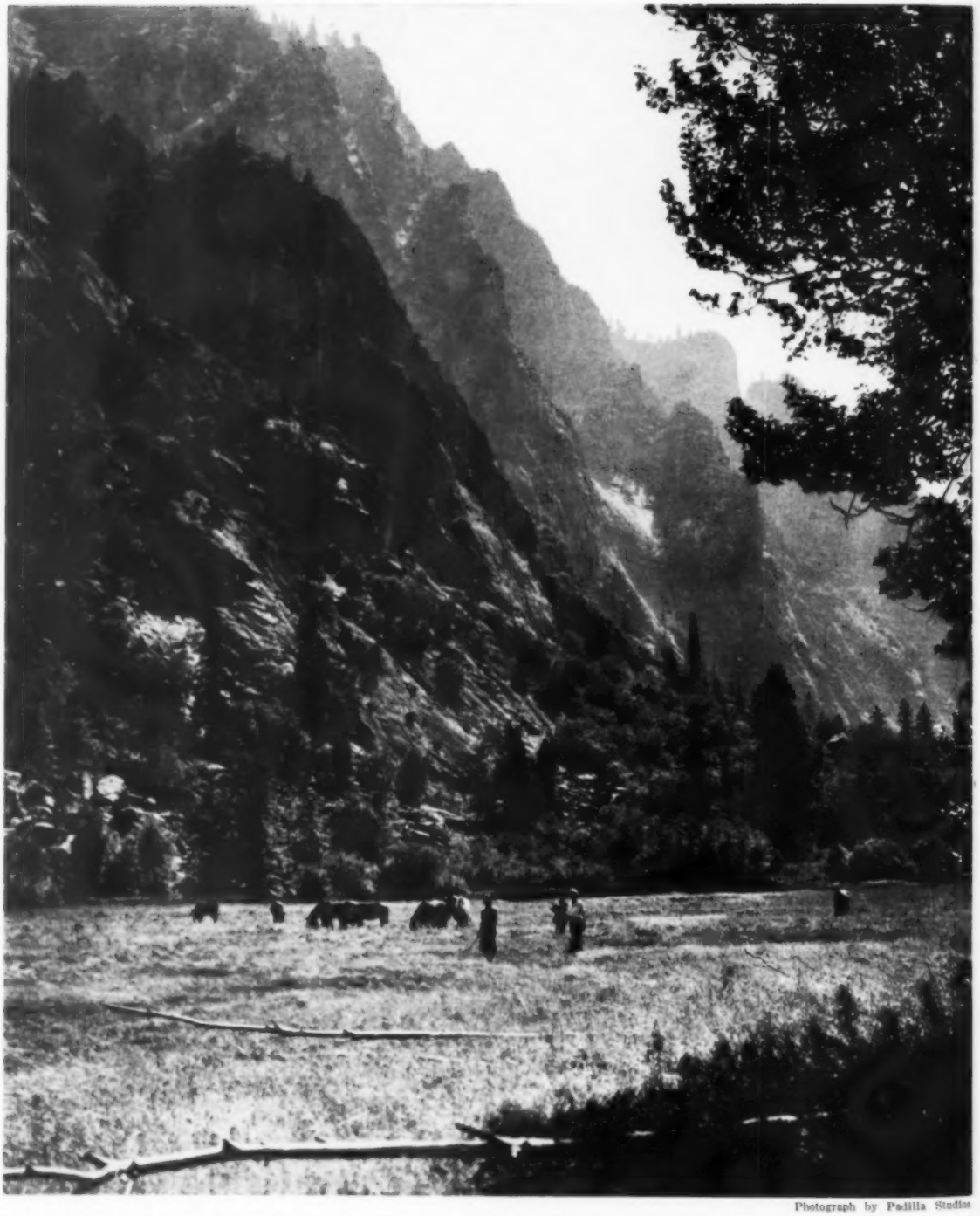
JOHN MUIR, PROMOTER YOSEMITE NATIONAL PARK, FOUNDER AND LIFE PRESIDENT SIERRA CLUB, FIRST TO URGE KINGS CANYON NATIONAL PARK AND OPPOSE HETCH HETCHY RESERVOIR. FROM A PAINTING IN THE YOSEMITE MUSEUM BY HERBERT A. COLLINS.



THE MATHER MAP WHICH NAMED THE PROPOSED NATIONAL PARK AFTER THEODORE ROOSEVELT, AND ADDED THE SEQUOIA NATIONAL PARK. OPPOSED BY POWER INTERESTS LIKE ITS PREDECESSORS, BOTH BILLS AND THE NEXT TWO DIED FROM THE SAME CAUSE. IT WAS YEARS BEFORE SOMEONE THOUGHT OF BOULDER DAM TO SOLVE LOS ANGELES' NEED.



MAPS OF THE KINGS CANYON NATIONAL PARK AS TRIED FOR IN VAIN BY MATHER AND LATER BY THE SIERRA CLUB (DOTTED BOUNDARIES); AND AS FINALLY ADOPTED BY CONGRESS ON MARCH 4, 1940 (SOLID BLACK BOUNDARIES). IT IS THE MAP OF THE PARK TODAY.



Photograph by Padilla Studios

ZUMWALT MEADOW AT THE HEAD OF THE SOUTH CANYON ROAD SHOWING CAMPERS COLLECTING THEIR HORSES AFTER BREAKFAST FOR A WIDE CHOICE OF GORGEOUS TRAIL JOURNEYS.

park which each proposed. These bills sought to make in the Tehipite Valley and the Kings River Canyon new Hetch Hetchys for the production of commercial water power in a dry country without coal.

But he was far from the first either closely to study the Kings or to advocate making it a national park.

John Muir first saw it in 1875, and it is a fair inference that his advocacy inspired Senator John Franklin Miller's introduction of the first bill in Congress for a national park in the Kings. This proposed park extended from the Tehipite, inclusive, to a point southeast of Porterville. This was in 1881. Though it failed, it added to the distinction of Miller's career. He was a Republican presidential elector on three occasions, in 1872, in 1876, and in 1880. As a further evidence of the esteem in which he was held, he was elected by his fellow citizens as a delegate to the second State Constitutional Convention of 1878-9, that which gave California the Constitution which is still in effect, though with many amendments, of course. He died in Washington, D. C., on March 8, 1886.

The first Sequoia National Park was created in 1890 but without the Kings or the Kern. You will find it on the larger map herewith. Also a little national park was built around the General Grant Tree, the second largest Big Tree, with the purpose of adding it later to Sequoia National Park, but it was added to the recent Kings Canyon National Park instead.

Photograph by C. O. Schmuser

FOUR LATER SIERRA CLUB PRESIDENTS. LEFT TO RIGHT: WILLIAM E. COLBY, ALSO THE ONLY SECRETARY, CLAIR S. TAPPAAN, ROBERT M. PRICE AND PROFESSOR JOSEPH N. LE CONTE, UNIVERSITY OF CALIFORNIA

For ten years following Mather's coming, he continually promoted some bill of many to include the Kings or the Kern as national parks, or to enlarge Sequoia. And in 1926 the Kern and Mount Whitney were added to Sequoia.

These proposed parks bore different titles according to conditions — Kings, Kings Canyon, Roosevelt (Teddy's memorial was then under national discussion), Roosevelt-Sequoia, and others; but the Kings areas called for were always practically identical in detail, falling westward from the lofty Sierra summit between Yosemite and the national forest far south.

As San Francisco had been identified with creating the Hetch Hetchy reservoir in Yosemite National Park after years of national struggle with a sensational wind-up, so was Los Angeles charged with the fights in Congress in Mather's early years to amend bills for the Kings country so as to admit power to the parks he hoped to create.

Boulder Dam Not Yet Dreamed of

In the earliest days of opposition it was the lumbermen and the stockmen who fought the creation of any park. It was the prospective lumber in those vast forests which were especially wanted for commercial use. Opposition of this kind has still existed even in the last campaign. Eventually a combine of five Pacific states' water power companies in common organization was disclosed to Congress, but its attacks failed under national popular protest.

Discouraged, Mather summoned to his office for discussion representatives of popular organizations aiding defense of standards and, on their advice, the important southern part of the disputed area was added to Sequoia National Park, giving it also an eastern summit boundary, the loftiest of them all, so the issue remained the same. There was no compromising with water power in this; Mather continued to insist upon the great Kings valleys in the still hoped-for national park, and the power companies continued ready to resume fight against any new park bill.

After Mather's death, for years peace continued to become ever more probable because meantime power from other sources, notably the damming of the vast Colorado, was proposed and achieved at a cost less than that of damming the superlatively beautiful valleys of the Kings.

Except for road extension up the lower canyon for several miles in response to local demand, the Forest Service faithfully preserved it until the act of 1939, which resulted in the tempestuous creation in 1940 of the existing national park without including in it either of the great valleys which both Muir and Mather so adored. The maps show you this in detail. To the first of all the bills, the opposition of many foresters resulted in a personal examination by Chief Forester Henry E. Graves, who thereupon offered the area to Mather. And his successor addressed the Public Lands Committee of the House concerning a later bill for the same area, so earnestly favoring

National Park Service and Francois Matthes

MAP OF THE SIERRA NEVADA WITH ITS THREE FAMOUS NATIONAL PARKS. ITS WIDTH IS ABOUT SIXTY MILES.

the highest standards that I published his statement in the National Parks Bulletin which was read by the members of Congress individually.

It is interesting to note that, from Senator Miller's first bill to Representative Gearhart's last, it took fifty-nine years to get this one national park created. And it is heartening to know that the outstanding policies governing both the Tehipite Valley and the Kings River Canyon have not been destroyed.

I have never personally believed, and I do not now believe that, in these enlightened times, any question of individual profit will influence Congress to permit the destruction of triumphant beauty such as these two revelations of one of Nature's most astounding achievements held up to public view.

"During negotiations before the bill was passed," writes Associate Director A. E. Demaray of the National Park Service, "the possibility of squaring up the west boundary was discussed, but no course of action was adopted. Later on, after the park was established, an agreement was made with the Forest Service for the operation of their Cedar Grove camping ground facilities adjacent to the park along the South Fork, and for the protection of park approaches and entrance roadsides."

"There is no change of status in the Tehipite Valley area," Director Newton B. Drury of the National Park Service puts it. "It is national forest land, and the reclamation withdrawal, in connection with the Pine Flat irrigation proposal, still stands. Park Service has no jurisdiction whatever. Likewise, in the Cedar Grove area, which we presume to be what you refer to as the west floor, the land remains with the Forest Service and the reclamation withdrawal stands.

"As of August 15, 1940, an administrative agreement was entered into between the Forest Service and the Park Service providing simply that the Park Service shall administer the use of the Cedar Grove area. No Executive Order was issued. The problem called for no more than an administrative field agreement between the two Services."

The Mather Mountain Parties

Preliminary to this by turn more and less agitated history, even before the National Park Service was established, the Mather Mountain Parties showed this noble country to groups of invited seers and doers. The photograph herewith, taken at the close of our first breakfast in the wilderness, is worth many times in descriptive power a dozen pages of text.

The portrait of Mather in his young and vigorous prime, already several times a millionaire of his own achievement, is characteristic. So also is characteristic his casual dress on the most strenuous of his mountain journeys. By him on his left is F. O. McCormick, wilderness enthusiast and vice-president of the Southern Pacific Railroad. F. B. McClure, untiring hiker of high trails, is shown next to the largest tree. Harold F. White, writer and lawyer of Chicago, sits beside him. Next to him is the writer of this tale. Then there is George Davis of the United States Geological Survey, fly fisherman extraordinary, leader of the party—which did not bother always to follow trails. Also is shown F. W. Grimwood, sportsman and student of nature, and Edward S. Curtis of photographic renown.

Unique among all was Tie Sing, thirty years chef for Geological Survey explorers, who a few days later begged from a passing hiker half a baby bear shot that morning. "It's for the President," said Tie. "Didn't you see him? That good looker on the white mule!" The hiker refused payment. No doubt youngsters somewhere are still telling how grandpa gave the President of the United States half a baby bear.

After our breakfasts of fruit, cereal, eggs, ham, bacon, hot cakes, maple syrup and coffee, each would pack and sack his own forest bedroom (there are few summer rains in the Sierra) for Tie to bring afterward, and ride joyously off, eyes alert, behind George Davis. Last of them all, one morning, I stopped to discover why Tie was laying duplicated strips of the clean-

Photograph by Edward S. Curtis

THE SECOND MATHER MOUNTAIN PARTY AFTER DINNER IN TEHIPITE VALLEY

From left to right, F. B. McClure, Harold F. White, Robert Sterling Yard, George Davis, Stephen T. Mather, E. O. McCormick, F. W. Grimwood and Edward S. Curtis. After which each made up his own bed on an overlooking hillside under the full moon and slept profoundly to the music of a little waterfall under which each took a very hasty morning bath. Phew! Gee! Grand to remember.

est of white muslin on each side the back of his kitchen mule.

"We late," Tie explained in his happy pidgin. "No time raise biscuit beside hot coals. We got to hustle. But mule gets hot on all day trail and raise dough under the stove and pots he carries on his back. So we get our hot biscuit for dinner all right. See?"

Tie's kitchen was a Wilderness Delmonico's. Steve gave his wilderness guests for dinner, cocktails, soup, trout, roast, three vegetables, dessert and coffee.

"Why do you use mules?" I asked Davis.

"A horse," he replied, "has imagination. A mule has none."

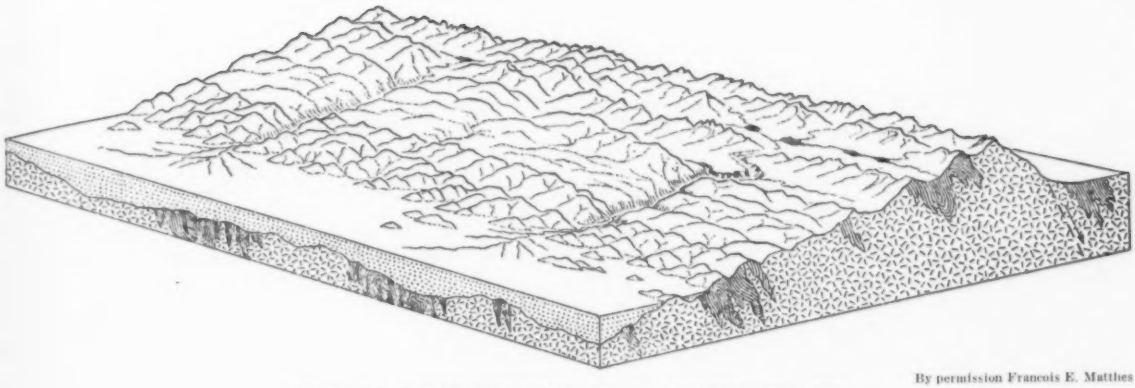
This party, and Mather's later mountain parties starting from Yosemite, pursued the John Muir Trail into the very heart of the most elaborate and gorgeous wilderness in America. Incidentally, some of them spent occasional nights in the two or three-room hollows in vast Sequoia trees which had been John Muir's homes during his explorings and studies of this great wilderness. His habit, they told us, was to enter the wilderness with a blanket, a day's food and no weapon; he lived off the country months at a time. There were berries, nuts and fruit, also chances to trade with campers. Muir had been founder of the Sierra Club and its first president. It was on his advocacy that Yosemite had been created a national park. He had opposed the damming of the Hetch Hetchy Valley, first suggested in 1882, and had led the nation's protestants in 1908 and 1909 in Congress—the first nation-wide protest of its kind in the history of the parks.

John Muir and the Kings Country

The human story of John Muir and the Kings country is one of the most fascinating of its kind in American history, but it has been told many times, both in his own many writings, including books, and in his admirable biography; which reminds me of his biographer, William Frederic Badè; the "fighting parson," for twenty-nine years to his death a director of the Sierra Club and once its president, mountain climber extraordinary, scholar, writer of books, orator, leader of many public causes, head of a school of religion, finder of the biblical

Photograph by Edward S. Curtis

COME AND GET IT IN TIE SING'S MIDDLE FORK KITCHEN, WITH SOUP, TROUT, BROILED CHICKEN, THREE VEGETABLES, CELERY, HOT BREAD, BUTTER, CHERRY PIE IN THE OVEN AND STRONG COFFEE ON THE HEARTH. THEN, CIGARS AND CIGARETTES.



By permission Francois E. Matthes

IDEALIZED REPRESENTATION OF A PORTION OF THE TILTED SIERRA BLOCK, SHOWING THE "ROOTS" OF THE ANCESTRAL SIERRAS, PENETRATING DEEP INTO THE GRANITE; ALSO LONGITUDINAL CRESTS AND VALLEYS. VERTICAL SCALE EXAGGERATED.

Photograph by Edith L. Matthes

FRANCOIS E. MATTHES, WHO SOLVED THE REMARKABLE GEOLOGICAL PUZZLE OF THE SIERRA NEVADA, SO EARNESTLY SOUGHT BY SO MANY FOR SO MANY YEARS

city of Mispah near Jerusalem and its successful excavator, who was as intimately my own adviser and personal friend as could be with a continent between us.

Muir had dreamed of the Kings as a national park, but safe from the fate which had befallen the Hetch Hetchy Valley of Yosemite. He urged it for years. Mather's dream of the Kings was to carry the fight on from where Muir had been forced to drop it by his death, making it one of the grandest units of the National Park System which he hoped to develop. Meantime, the Sierra Club, for all his life thereafter under devoted presidents and directors, some of whom still lead its activities, began minute exploring of the Kings and adding importantly to its literature. William E. Colby, for example, secretary and pace maker from the beginning, is still alert as secretary, and Francis P. Farquhar was its first, and still remains its industrious author and the editor of its elaborate quarterly. Its present officers are Walter A. Starr, president, Bestor Robinson, vice-president, Colby of course secretary, and Walter L. Huber, whose photographs are famous, treasurer.

What the Kings has become since, though at last a national park, is far from what any of these men worked for. It lacks the Tehipite Valley and the Kings River Canyon. They remain in the national forest.

But our dreams may still be realized.

But what of the Sierra Nevada, the Snowy Mountains of the Spaniards?

Where the volcanic Cascades of Washington and Oregon, dropping southward from the Canadian border a hundred miles within California, end in the Lassen Volcanic National Park, the granite Sierra Nevada, unique of all American mountains in architecture, individuality, height and grandeur, begins a little to one side. Thence it closely parallels the California eastern boundary southward for four hundred and thirty miles to lapse into low sierras, hills and levels, at its southern end.

The Sierra and its Canyons

This amazing range, seen from the east, is a forbidding fortress which no road can cross for hundreds of miles. Seen from the west, it rises in towering snow-clad masses, crowned with bulked and splintered ridges and pyramided in all directions so far as the climber's eye can reach. This is the celebrated High Sierra whose melting waters gather, close to the summits, in countless mirror-like lakelets, and sometimes combine into streams meeting first in V-shaped valleys which broaden and deepen into roaring currents many hundred feet between more or less perpendicular walls.

It is these occasional deep carven canyons, through the middle of each of which again roar ice cold rivers (now crowded with trout) which give the Sierra Nevada its extraordinary character and repute.

The most northern of these, the Hetch Hetchy Valley, which Muir declared the most beautiful next to Yosemite in the wide world, has lost its character and grandeur in the reservoir which it has now become. Thank Heaven, it was my fortune to see it before San Francisco dammed it to provide water for city mains, enough of which, by the way, it has never used to make it worth a small fraction of its cost.

Next south of this several miles is marvelous Yosemite, named by the Indians the Great Bear, which more people know and love than any other valley in the world. The grizzly was the greatest animal which these Indians ever knew.

Next south of Yosemite is the Tehipite Valley of the Middle Fork of the Kings River, which is believed by many, and was by Mather, Yosemite's only rival in exquisiteness and unique values.

Next south of that is the Kings River Canyon of the South Fork of the Kings, which brings this type of canyon grandly into the very heart of the High Sierra. It is a far ruggeder Yosemite. It finds its origins under the very summits of these giant mountains' crest, surrounded by the everlasting snows from which it appropriately springs.

Fifth and last of these wonder valleys is that of the Kern River, which alone flows south from its beginnings on high.

The Kern Canyon, last of the group of greatest, is one of the Sierra Nevada's most striking and beautiful expressions. Imagine a granite dish eight or ten miles in diameter whose upturned edges consist of the loftiest mountains in the United States, the inside drainage of which converges into a crystal ice-cold stream which has grown into a young tumbling river where it breaks through its creating mountains in the south and begins a career which closes in the San Joaquin many miles southwest. This is the Kern.

There are at least thirteen passes over the mountains into this sensationally beautiful birth chamber, some of them well patronized by visitors. Those are the most often climbed which show Mount Whitney on the opposite side of the basin. The one which I think offers the finest view is Franklin Pass, which we got at by starting horseback from Mineral King. The summit of Florence Peak is 12,405 feet close at hand. Here we lingered so long over this view of views that the

Photograph by Malm, Region Four

THE TEHIPITE VALLEY, YOSEMITE'S RIVAL, MIDDLE FORK OF THE KINGS

Showing Tehipite Dome on the North Wall. Both walls are loftier than Yosemite. Leading up stream to Simpson Meadows, Mount Woodworth, Cartridge Creek, Grouse Meadows, Mather Pass.

From a Photograph by Walter L. Huber

MAJESTIC GROUSE MEADOWS, CONTINUATION NORTH OF TEHIPITE VALLEY, MIDDLE FORK. ON TO LE CONTE CANYON, MUIR PASS WITH ITS MANY LAKELETS, AND THE HIGHLANDS BOUNDED BY EVOLUTION VALLEY AND PIUTE CREEK.

Rattlesnake Creek trail brought us to the river too late for us, but not, fortunately, for the horses, even to see.

The Sierra Nevada Block

"Be it understood, at the outset," writes François E. Matthes of the United States Geological Survey, whose years of enlightening study have solved this most complicated and difficult problem, and one of our longest in contention, "that the Sierra Nevada, which is a huge tilted block of the earth's crust, slanting toward the west, is not the first mountain range to occupy the region east of the Great Valley of California. Long before it was uplifted, another mountain range, or, to be more accurate, a system of mountain ranges, stood in the same place. And that earlier mountain system, itself, was a late comer in geologic history; for it rose in the Mesozoic era, the era of giant reptiles, only about one hundred million years ago, after the earth had been troubled with spasmodic heavings and sinkings for upward of one and a half billion years.

"A complete record of all those successive disturbances probably will never be obtained, for the evidences grow more and more fragmentary the farther back they are pursued; but this much is definitely known, that during those vast stretches of time the area now occupied by the Sierra Nevada was alternately ocean-bottom and land, and, when it was land, it bore as a rule hills and even mountains of some height."

This, I quote from his paper on "The Geologic History of Mount Whitney" in the Sierra Club Bulletin of February, 1937. But first glance again at the drawing on page 11.

"It is with the mountain system that preceded the advent of the present Sierra Nevada," continues Mr. Matthes, "that we must begin. What has become of it? Are any of its mountains and valleys still in existence? No, they have been completely annihilated, eradicated from the face of the earth; but fortunately some of the roots, if we may call them such, remain incorporated in the body of the present Sierra, and from these it is possible with some confidence to infer the structure and even the topography of those ancestral Sierras. They were carved evidently from great wavelike folds or

Photograph by Joseph Muench

EAST FRONT OF THE SIERRA SEEN FROM OWENS VALLEY. THE EXTREME TOP, WHERE MOISTURE DIVIDES BETWEEN EAST AND WEST, IS THE EASTERN BOUNDARY OF THE KINGS CANYON NATIONAL PARK.

wrinkles in the earth's crest produced by the buckling of originally flat-lying strata, and they must have had the aspect of roughly parallel mountain ridges similar to those of the Appalachian System but trending in general from northwest to southeast.

"These ancestral Sierras were in existence for nearly eighty million years, and in that time were gradually worn down by the processes of erosion until nothing remained, presumably, but rows of hills in a lowland that sloped gently down to the sea. Between those hills, which were composed of the more obdurate rocks, the streams followed belts of less resistant rocks, mostly in northwesterly or southeasterly directions.

"Then, about fifty to sixty million years ago, shortly after the dawn of the Cenozoic era, the era of mammals and the latest great time division of geologic history, began the first uplifts that led to the rise of the present range. They tilted the Sierra region and the country to the east of it toward the southwest, and as a result a new system of southwestward flowing master streams came into existence; but many of the lesser streams between the ridges, unable to shift, maintained their southeasterly or northwesterly courses.

"Trenching deeper with every succeeding uplift, they eventually cut through the lowest of the folded strata and graved their valleys in the granite underneath — the granite which had welled up in a molten state from the depths of the earth and had crystallized under the folds of the ancestral Sierras.

"And so the northwest-southeast trend of those ancient mountains was perpetuated in the landscape of the present range.

"Little attention — altogether too little — has been paid to the significance of the crests and valleys of the Sierra Nevada that trend in northwesterly or southeasterly directions, roughly parallel to the main crest-line and at right angles to the master canyons, which drain more or less directly down the western slope. These multiple crests, with their jagged peaks, have led us to speak, familiarly, of the Sierras and justify the use of the plural form.

"They are now seen to be the very oldest features in the landscape of the range, an inheritance from the long departed ancestral Sierras. . . . Farther south, in the headwaters of the Kings River, and in Sequoia National Park, where the folded structures of the ancestral Sierras bend gradually south-southeastward, the principal lineaments of the High Sierra notably bend in the same direction, although they are carved for the greater part out of granite."

Thirteen Conflicting Theorists

François Matthes, whose solution of the Sierra Nevada problem followed thirteen unsuccessful tries, closed a period of scientific speculation which had begun in 1863 under the world-famous Josiah D. Whitney, State Geologist of California. Whitney officially led those who believed that a paroxysm only could have produced the Yosemite Valley and others like it. The bottoms of these valleys, he believed, must have "dropped out" owing to convulsive movements within the earth.

Clarence King, later Chief of the United States Geological Survey, whose speculations appeared between Whitney and Matthes, conceived that Yosemite was a "yawning crack" due to the "splitting apart of the valley sides" by terrific force.

King's "Mountaineering in the Sierra Nevada," originally published in 1871, was republished in 1902 "with the motive of restoring to print and circulation a work too perfect in

Photograph by Laval

THE END OF A PERFECT DAY IN PARADISE VALLEY, SOUTH FORK. BIG YELLOW PINE ON LEFT.

Photograph by Josef Muench

UNIVERSITY PEAK, A SPECTACLE OF GRANDEUR, DOMINATING THE LANDSCAPE FOR MANY MILES, RISES 13,588 FEET. ALMOST AT ITS FOOT, ONION VALLEY, EAST OF THE SIERRA, PASSES ACROSS ITS SUMMIT THROUGH KEARSARGE PASS.

form and too rare in quality to be allowed to lapse." This quotes a notice by the publisher.

Francis Farquhar has since published still a later edition, thus making sure of its perpetuation.

In 1866 Professor William P. Blake, of the University of California, first suggested that water flowing under the glacier did much of the cutting. Muir was the first who saw clearly that glaciers themselves did most of the cutting, and led a heated controversy with Whitney, who stuck to his belief.

Many others of note differed in still other ways, and the fame of some of these, like that of Whitney and King, was perpetuated in the names of the loftiest and most famous Sierra peaks.

A Dutchman Did It

Meantime, a modest young man with a gentle Dutch tongue, François Matthes of the United States Geological Survey, having made, as a topographical engineer, the detail map of the Yosemite Valley, developed in 1913, as a geologist, the facts of birth and extraordinary growth, not only of Yosemite, where he began, but of all the Sierra Nevada. In fact I know of no better few weeks' respite from war's worries than to spend a François Matthes Vacation in Yosemite. All that is necessary is to buy his "Geologic History of the Yosemite Valley" from the superintendent of the national park and devote a few hours a day to studying his dramatic findings on the spot.

Photograph by Josef Muench

THE CELEBRATED BUT NOT OFTEN VISITED KEARSARGE PINNACLES IN THE HIGH SIERRA

Fronted by the Kearsarge Lakes, shown at their feet. The whole spectacle faces Kearsarge Pass, which plunges over Sierra summit into Owens Valley and to the little city of Independence. It is one of the most striking scenic centers even in the Kings. North of that, almost a part of it, is Bullfrog Lake.

Even the Rocks Decorate

Replying to questions which I wrote him to sharpen a memory which needed it, Matthes, the unfailing, replies:

"You are quite right in saying that there is more of the Kings wilderness than of the Kings Canyon National Park. The North Fork drains an upland country that is not so deeply and thoroughly dissected as the park area, and its canyon is relatively short and narrow. Some of the upland has large meadows and is used as cattle grazing country. There is also (or was) considerable logging, with a narrow-gauge logging railroad to bring the timbers down. Those areas can no longer be called wilderness, but there is plenty of rough, unspoiled country in the North Fork drainage basin, nevertheless.

"No doubt, the park itself is all wilderness. The wilderness is not all park.

"By far the largest part of the park is carved out of granite, or granitic rocks, some grayish, some light buff, some so brilliant that they look almost like snow among the sparse trees. There are several broad patches and narrow belts of dark-hued metamorphic rocks—slates, schists, and quartzites, that give the landscape bluish-gray, brownish and purplish tints. Mount Rixford is one of the most colorful peaks, being composed of pinkish, purplish and gray rocks. These form part of a long, narrow belt that extends from the Kearsarge Pass northward along the backbone of the range. There is also an area of dull-hued metamorphic rocks in the great V between the canyons of the Middle Fork and South Fork. But taken as a whole, the park may well be called a granite country.

"In the northernmost part is a belt of dark somber looking metamorphics that extends from Goddard Canyon, McGee Peak, Emerald Peak and Mount Goddard in a southerly direction toward the Middle Fork Canyon. The Evolution Basin, however, is all granite up to Mount Goddard. The Sphinx is, of course, of hard, solid granite; so is Mount Brewer, and so

are the Kearsarge Pinnacles. Mount Clarence King and the Sixty-Lake Basin are all granite."

Every high wilderness must be arrayed in its most brilliant summer raiment to attain its height of laughing beauty. As I recall the Kings' gay meadows on that midsummer so long ago I know that I have not seen richer carpetings than those adorning the floors of these incomparable palaces of the Kings; patterns and colors both changing completely, I seem to remember, as often even as three or four times in the season's swing.

The High Part of Beauty

"Beauty, whatever that is," writes Samuel Mason, Jr., in the current *American Forests*, "and utility, whatever that is, do not clash in the long run. Beauty represents happiness and utility also represents happiness and these trees, by merely being beautiful, are supremely useful."

And never were greater, solider, grander, greener and more gorgeous forests of conifers than those which climbed the hills and mountain sides, sweeping in and out of generous hollows, and often skirting the very edges of rushing rivers and tumbling creeks.

I recall no Rocky Mountains nearly so noble.

The Sierra Nevada rises twelve or fourteen thousand feet almost from sea level so abruptly as to cause as great diversity of climates as one would encounter in traveling from Mexico to Alaska. Each tree species has its own climatic requirements.

We therefore find the trees occurring in definite belts, one above the other. Those hardy pioneers which can withstand the long and intense cold of arctic winters are found at timberline, while the species which most resist drought have claimed the dry regions of the foothills. So definite is this balance in nature that, by observing the trees, one can estimate quite definitely the altitude at which he stands.

The Main Timber Belt

The Main Timber Belt begins at about four thousand feet. This forest, which extends to seven or eight thousand feet, is one of the finest in the world both as to size and beauty of trees and grandeur of landscape.

Kings even has its Giant Sequoias, though this was not looked forward to by those who planned of old. The little General Grant National Park of the far past which was then expected some day to be added to Sequoia National Park, now reaches south hand in hand with Redwood Mountain, touching Sequoia without joining it and joining Kings without touching it.

Here is the way Superintendent E. T. Scoyan summarized this story in an official statement dated October 10, 1941:

"Advocated as a national park for more than fifty years, the Kings Canyon National Park was at last created by an Act of Congress signed March 4, 1940. The former General Grant National Park, established in 1890, was then made a detached section of the new park; and a few months later the 4,000-acre Redwood Mountain Grove of Sequoias was purchased by the government, and some 6,000 acres of national forest lands were added to this detached area. The Grant Grove section thereupon became the gateway entrance to the park proper, and park administration headquarters are located in the new Federal Building at Fresno, California."

The entrance to the Grant Grove section of a highway from the Giant Forest of Sequoia National Park and another highway from the city of Fresno, the two meeting together near the General Grant Tree, have now together become the only entrance to the new Kings Canyon National Park by highway, for from this tree also starts a very fine new state highway which moves northeasterly to the South Fork of the Kings River and swings up to the river to Cedar Grove.

"General Grant National Park," writes Congressman Bertrand W. Gearhart under date of October 15, "was made part of the new Kings Canyon National Park for the simple reason that the new multiple-million-dollar highway, which pierces and opens to vehicular traffic Cedar Grove of the South Fork of the Kings Canyon proper, connects the two directly. Sequoia National Park is linked to the Grant Grove section by a lateral highway. . . . At the time that the new park was created, General Grant proper was enlarged by the addition of several hundred acres on the east side and, as you know, the Redwood Mountain area with its some 7,000 Sequoia Gigantea became a southern appendage preserving for posterity a vast wilderness which was threatened with economic desecration."

Thus end at their very beginning the Sequoias of the Kings Canyon National Park.

Few visited General Grant National Park in the old days because the roadway between the incoming railroad and the Giant Forest avoided the longer highway required to pass through it. After all, visitors had seen Grizzly Giant, third largest Sequoia, while in Yosemite; and the Sherman Tree, first largest, awaited them in the Giant Forest of Sequoia. Driven of their own cars usually went one way through General Grant.

The Forest Primeval

It is enough to know here that Kings contains Sequoias and that these include the second of the two largest trees; also, that this one is, in the belief of many, the most beautiful and majestic Sequoia in the world.

For the rest, there are thirteen other conifers in this national park's main forest belt, and a really wonderful forest they make of it. Also there are as many broadleafs, small, rich, beautiful and well scattered. This was one of the forests that early captured the fancy of John Muir and thousands afterward. Let us take a glance at it.

The tree I love best is the Sugar Pine. Here it reaches a couple of hundred feet in height and is the most independent, not to say majestic, of them all. It is massive of trunk, carries immense limbs near its top, and all over its limbs it hangs enormous cones, many of them eighteen to twenty inches long. Whatever souvenirs visitors first bring away, there are sure to be more of these big cones than can very well be cared for. Sequoia cones are extremely small.

Close to every Sugar Pine, you'll be certain to find at least one Western Yellow Pine. These are just as lofty, just as massive, just as self sure, and more plentiful, fortunately, than any other. Their bark lies in large, heavy yellow plates. It is the most popular tree. Both, in fact, yield in height, alone, to the Sequoia, when there are Sequoias.

In close association with the Yellow Pine and Sugar Pine, so much so that one comes almost to think of the three together, is the comely Incense Cedar, a mere hundred and fifty feet high at most, tapering of trunk, with bark like that of the Sequoia.

Just as tall and heavy as either, and usually close by, are the two firs, Red and White. But the Red Fir is more apt to troop in crowds. Their fine dark red-brown bark can be made out through the opens a long way off. "I'll meet you in the Red Firs," you may say to your tent mate who's staying in camp to do his week's wash. "I should be back there with the trout by one o'clock."

Giant Perchers Upon High

Both firs grow freely up to nine thousand feet of altitude. All these big fellows range high, and some are found far up among the subalpines, which run smaller. The Sierra Juniper, for example, is seldom higher than sixty feet but draws the eye because of its picturesqueness. On bleak, rocky crests, it often attains a thickness of six to ten feet of trunk. Its branches are irregular and its grain twisted. It's a tree that visitors photograph and hang up at home. You find it up to altitudes of ten or eleven thousand feet.

Another percher upon high dry ridges, but not so high, is the Jeffrey Pine. Most people think it a stunted Yellow Pine, but it is a distinct species. It is shorter than the Yellow Pine with massive trunk and cinnamon-red ridged bark.

As in the Rockies, here the most common pine is the Lodgepole, frequently found at eleven thousand feet. Another high one is the Western White Pine, but scarce enough to be frequently noticed. It is called by several names, notably the Silver Pine. Its heavy trunk is checked like alligator skin.

Two not so often seen but high up are the Mountain Hemlock and Foxtail Pine. The former is slender and drooping, the latter heavy; both striking and beautiful.

Most picturesque, perhaps, of all, is the Whitebark Pine of the highest altitudes. Oftenest, if not always, it lies prostrate on the summit rocks as if cast there by a heavy gale. By no means my favorite tree, nevertheless, I have never, if I knew it, escaped lingering awhile with any I chanced to meet.

Once climb this wonder forest from say three thousand feet of western altitude to the rock and snow line across which one looks down on the east side of the range into the dim country which hides Death Valley, whose surface is below the level of the sea, and you will never forget a day or a mountain or a view or a canyon or a tree or a wild flower of it all.

Permission of National Park Service

EAST VIDETTE, OPPOSITE THE WEST VIDETTE, BOTH TOWERING ABOVE BUBBS CREEK. THEY RISE SOUTHWEST OF BEAUTIFUL BULLFROG LAKE, A REGION UNIQUE IN MOUNTAIN FORMS.

WILDERNESS

By Percy MacKaye

Look on these quiet mountains. Let our quest
Be Nature's silences. Return the gaze
Of these all-seeing stars, till the still ways
Of the living wilderness restore life's zest.
These are our inner selves, made manifest
In grandeur and serenity, that raise
The petty stature of our restless days
To match their own immensities of rest.

Nature is the image of immortality.
Let us preserve upon this lovely earth
Her vestiges of our sublime re-birth
In timeless realms of mind, where man is free.
Through her vast pulse we learn to feel her will,
And through her eyes view the invisible.

Conservation in War Time

By Olaus J. Murie

A RECENT news item from the Fish and Wildlife Service expressed the thought that has been in the minds of many Americans since we entered the war. What shall we do about our conservation program, our game supplies, our recreation, during wartime?

Doctor Ira N. Gabrielson, in this news report, stated that he had found the perfect answer on a pledge card beside his dinner plate at a sportsman's banquet in Wellsboro, Pennsylvania, which read:

"I pledge my heart and my right hand to my flag and my country.

"I further pledge myself to help carry out the wildlife conservation program, now in progress, to the end that your boy and my boy, now serving his country, may find the good hunting and fishing he has a right to expect when he returns to civil life."

In many ways, through its research program, the Fish and Wildlife Service has been suggesting methods of augmenting our food supplies from our fisheries resource, and that actual meat supply may be made available in problem areas, where the game herds in excess of carrying capacity are a detriment to the range. As Albert Day stated, in the news release mentioned above: "Positive contributions can be made through wildlife in the form of furs, a meat supply, and in keeping people fit," though he rightly cautioned against permitting "basic stocks of wildlife to be raided, wildlife habitat to be unnecessarily destroyed, and waters to be polluted."

It is true that in times like this our wildlife resources can contribute in a material way. As a matter of fact, we have certain problem areas where it would be desirable to remove some of the animals by official action and to dispose of the meat directly to army camps, hospitals or other places where it will do the most good. This in addition to normal hunting activities. It would be in the interest of preserving our ranges and the health and welfare of the herds.

It is not necessary, in our enthusiasm for the war effort, that we injure our basic resource in the western ranges by overstocking with game or livestock. It is notable that the fighting armies do not destroy resources of an area until they find it necessary to retreat. We should not apply the scorched earth policy to our own land unless it should become a necessity. Americans are willing to make needed sacrifices, but want to keep what we are fighting for, not only to preserve the hunting and fishing for the boys when they come back, but to keep intact all other forms of outdoor recreation. We are fighting for the American way of life, an American environment. This includes our culture based on freedom, and our great out-of-doors. Now, more than ever, we must preserve our soil, our ranges, our wildlife and our recreation areas, so that, victory won, we may have left a minimum of scars on the face of our land and an adequate supply of those things that make life worth while.

The Cook Forest Can Be Saved

BY BERNARD FRANK

ABOUT one hundred miles north of Pittsburgh, in the Alleghenies of northwestern Pennsylvania, is the Cook State Forest. This six thousand-acre reservation contains one of the few remnants of the original pine-hemlock stands of the northeastern United States. Its preservation in 1929 was made possible by a public campaign participated in by the State of Pennsylvania and by conservation-minded citizens and organizations from many sections of the country.

The intervening years have fulfilled the aspirations of those who fought so hard and contributed so generously to this end. Today, the Cook Forest, and especially the old-time timber, is the mecca of tens of thousands of plain American people seeking the emotional satisfaction of a primeval environment—if only on a pitifully small scale.

Now a new danger threatens what fire and storm and man's destructiveness have not yet succeeded in jeopardizing over the past four hundred years.

The forest is located along the Clarion River near Cooksburg, Pennsylvania. As the accompanying map shows, the main virgin areas occur a short distance above the mouth of Tom's Run, a small tributary stream, and on the steep west bank of the Clarion River itself. Some miles farther down the river, as part of the extensive system of reservoirs on the Allegheny and Monongahela Rivers designed to protect Pittsburgh from the hazard of floods, is the proposed Mill Creek Dam site, examined and found feasible for the dual purpose of flood control and public power. If this dam is built, the reservoir created will back up the river and up Tom's Run into the primeval stands.

The Mill Creek Dam would provide both flood control and cheap hydroelectric power at a reasonable cost to an important urban and industrial section. It is clearly in the public interest, and as such merits most careful consideration.

On the other hand, the Cook Forest has also been set aside in the public interest. The six hundred thousand dollars collected to acquire its virgin stands by no means fix its value for comparison with the economic values that a dam would create. Rather it serves as an index of the willingness on the part of thousands of citizens—from school children up to members of the Cosmos Club—to pay the price necessary for its preservation.

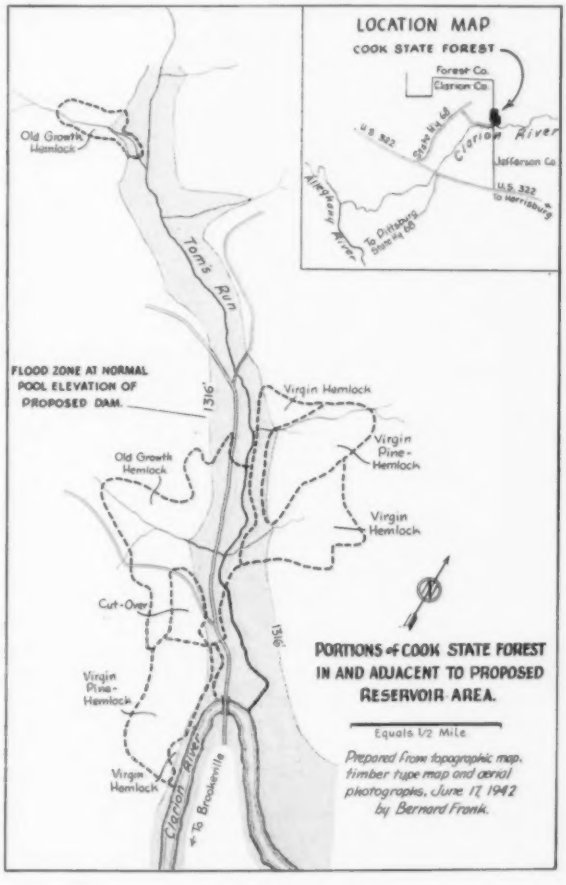
Two questions come to mind in weighing this knotty problem. Is the public willing to sacrifice the very tangible benefits in flood protection and cheap hydroelectric power that the dam would surely bring, merely for the sake of keeping intact a small clear spot on the face of an otherwise scarred nature? Assuming these benefits are too significant to sacrifice, would it be possible to realize them in such a way as to avoid the destruction of Cook Forest?

The answer to these questions is a serious public responsibility that extends far beyond the confines of Cook Forest. Only a well-informed public can undertake to exercise that responsibility intelligently. To do so it must have the benefit of the facts.

Age and Condition of the Forest

The primeval sections of the forest in and adjoining the proposed reservoir total two hundred and sixty-three acres. The virgin white pine-hemlock type comprises sixty-one acres and the virgin hemlock type, ninety-three acres. The balance consists of hemlock from which only the white pine was culled out.

Recent examination shows that the virgin forest dates back about four hundred years. Tree rings and other evidence relate the story of its long development. Sometime between the years 1550 and 1650, a natural cataclysm (or probably fires set by the Indians) opened up the then existing forest



Courtesy of Pennsylvania Department of Forests and Waters

AMONG THE VIRGIN PINES AND BIG HEMLOCKS

and exposed the mineral soil. It was also a good seed year for the white pines that survived or grew nearby and their dense growth quickly occupied the land. As shade developed and a litter formed, conditions became favorable for the invasion of hemlock seedlings from neighboring stands. This development was gradual, taking place over a period of from one hundred to two hundred years.

The hemlock is now becoming dominant everywhere and as the old pines die out will in time form a growth of practically pure hemlock. In contrast to the complete lack of sun-loving pine seedlings, hemlocks of all sizes are abundant, fully at home under the shade and deep litter of the tall monarchs above.

Pines and hemlocks of majestic height and ample girth dominate the landscape. The undergrowth is typically light with a profusion of acid-soil wild flowers growing upon the thick humus layers beneath. Dense thickets of rhododendron grace the lower slopes along Tom's Run and the upper slopes of the Clarion River. Away from the more heavily frequented trails, the sights, sounds and smells of the primeval environment impress themselves upon the consciousness. This, in all too inadequate words, is the setting of Cook Forest.

Suppose the forest is saved? What of its future? Will it remain long enough in its present phase of development, assuming no unforeseen natural or man-made disturbances, to pay the price of its preservation? This question, too, needs answering.

The white pine grew rapidly during the first thirty to fifty years. Thereafter, growth began to diminish, and up to the present only a slow rate has been maintained. This was the natural result of the sharp competition between the thickly standing young saplings and poles. The spindly form and short, narrow crowns of a number of the old pines, particularly in and around the "Sacred Area," tell plainly the familiar story of the struggle for existence in the natural forest.

Not all the pines are like this, however. Like the "Big Pine," forty-seven inches in diameter and one hundred thirty-three feet in height, many are well proportioned and possess a goodly length of vigorously green crown indicative of a long life ahead.

Some Damage in Evidence

Some of the old trees, both pine and hemlock, show thinning crowns, probably from the effects of drought. Along with this has occurred a distinct slowing down of growth over the past decade or two in trees of all sizes. This evidence checks with local recollections of a prolonged dry spell dating back to at least the severe drought of 1930.

The greatest amount of damage observed was from lightning storms, especially in the spring of 1942. This is quite unusual, since the more common season for such storms is in midsummer. One of the most heavily damaged spots is within the "Sacred Area" where the tall pines are more isolated and exposed. The more badly injured trees are already dying, but in many there is a likely chance of recovery. Blowdowns of trees weakened by lightning, excessive trampling of visitors, improper trail construction and by other causes, are not uncommon. The fact that both pine and hemlock are shallow-rooted and their roots characteristically interlaced with those of neighboring trees increases the possibility of more than one tree going down at a time. Thus, in one spot, near the junction of the Longfellow and Rhododendron Trails, three pine and two hemlock had fallen together.

Probable Life of the Old Timber

Two estimates were made of the probable life of the remaining large-sized trees, one premised upon present drought

conditions continuing, the other upon a return of favorable moisture relations. The Tom's Run and Clarion River tracts were considered separately because the former is a well-protected area on gentle slopes while the latter is exposed and on a fairly steep slope.

If the dry cycle prevails, sixty per cent of the pine in the Tom's Run section will be gone by twenty-five years, and ninety per cent by fifty years. The hemlock will not be affected to the same degree. Thirty per cent will die within twenty-five years and sixty per cent within fifty years. Along the Clarion River, the loss will be correspondingly lower: less than half the white pine within twenty-five years and seventy-five per cent within fifty years.

If a wet cycle prevails, the proportion of trees dying in each of the above tracts will be considerably smaller. Thus, by the end of fifty years, no more pine probably will die than in a twenty-five year dry period.

This does not mean that the virgin and old growth forest will disappear altogether, even over a much longer period. It means only that under natural conditions the present stand will gradually pass over into one comprised of pure hemlock. Growth and decay will continue in about equal proportions, the dying trees being replaced by others, and on the whole, no significant change, aside from the disappearance of the old pine, will take place in the appearance of the forest or in the rate and vigor of ecologic activity.

This, in brief, is the story of the growth, development and future prospects of Cook Forest.

Direct and Indirect Effects of Mill Creek Dam

What of the Mill Creek Dam? If this dam is built, the effects will be to eradicate the white pine and to damage or destroy the larger portion of the remaining old growth hemlock both below and above the level of the reservoir. This destruction will result from a combination of direct and indirect effects.

Clearing for the reservoir area up to the 1,316 feet elevation would remove ninety-four acres in large trees, of which, however, only seven acres would consist of virgin pine and hemlock. With a rise to the 1,330 feet level, which might occur whenever excess rainfall over the watershed made it necessary to hold back threatening flood flows, seventeen acres of additional timber would be destroyed, including four acres in pine-hemlock.

Photograph by the Author

FALLEN MONARCHS ARE BUCKED UP AND SOLD FOR MANUFACTURE INTO LUMBER. SURPRISINGLY LITTLE DECAY HAS AFFECTED THE WOOD OF THESE OLD-AGED TREES

Photograph by the Author

LEANING WHITE PINE IN THE HEART OF THE "SACRED AREA." LIGHTNING DAMAGE AND BREAKAGE HAS BEEN ESPECIALLY SEVERE IN THIS SECTION OF THE VIRGIN FOREST

Only a very few days' submergence would be required to do this additional direct damage. Old age coniferous timber cannot withstand submergence as can young timber, or other species more accustomed to a high water table and poorer drainage conditions generally. Death would quickly follow the drastically changed moisture conditions, particularly in the old growth stands along Tom's Run, where the topography is relatively gentle and where the water would be absorbed and retarded in the humus and mineral soil mantle for perhaps a week or more after the pool level dropped below the 1,330 feet elevation.

In addition to submergence, the weakening of the support provided by the shallow root systems of the pine and hemlock through softening of the ground, together with bank caving, would cause many of the trees to topple over in and directly above the 1,316-1,330 feet elevation zone.

Another direct loss, especially along Tom's Run, would be the destruction of the rhododendron thickets, most of which occur well below the 1,316 contour.

The creation of a lake would have far greater consequences, however, than the direct effects above described. The lake would radically and completely change the environmental conditions under which the forest has developed during the past four hundred years. At the 1,316 feet elevation along Tom's Run in the vicinity of the main virgin timber and old growth tracts, the lake would vary in width from one thousand to sixteen hundred feet. The new wind conditions created would produce almost immediate damage along the slopes of Tom's Run.

The destruction caused by the mechanical action of wind would be increased by the desiccation and death of trees resulting from the effects of wind and sun on moisture supply. The trees would be robbed of their regular supply of humid air within the stand, and of the moisture normally retained in the deep humus and soil layers below. This damage would continue until, within a period of less than ten years, eighty per cent of the remaining large timber on Tom's Run would be destroyed.

The tract along the west bank of the Clarion River would be affected far less seriously. This stand is already on a well-exposed site and the stems and root systems have adapted themselves to a sweep of wind approaching the new conditions that a lake would produce. It is estimated, therefore, that only

about twenty-five per cent of the large timber remaining above the 1,330 feet elevation would be destroyed.

Altogether, one hundred and twelve acres of virgin and old growth timber, in addition to the one hundred and eleven acres below 1,330 feet, would be affected. Thus, two hundred and twenty-three acres out of the two hundred and sixty-three acres, or eighty-five per cent of the total stand would be destroyed within ten years. Of the two main areas affected, that along Tom's Run is much superior. The combination of favorable soil, moisture, drainage and topography, and the protection afforded from the full sweep of the wind have produced nearly optimum conditions for the development of the finest type of climax forest. This also is the area which attracts by far the greatest number of scientists, other students of nature and those who want the emotional satisfaction of observing one of the last few remnants of the extensive coniferous forests of the Northeast.

Alternate Dam Sites Feasible

Is it possible to save Cook Forest and yet provide a reasonable degree of flood protection and public power? Yes, at a price. In place of one dam, it would be feasible to construct two smaller dams: one at the Mill Creek site, and the other about a mile and a half above the mouth of Tom's Run. The two would cost between ten million and twelve million dollars more than a single dam, or from forty to forty-two million dollars altogether. They would provide the same degree of flood protection and approximately the same amount of hydro-electric power. But the cost of that power would increase from around one and three-tenth cents per kilowatt hour to around three and one-half cents.

This is the price the public would have to pay for saving Cook Forest. If it does this, however, it must at the same time assume another serious responsibility. It must insure that its use of this unique natural museum will so be controlled and restrained as to make it last for the longest possible time.

Restricted Use An Important Public Responsibility

The Cook Forest is now suffering from overuse and too intensive development. The litter along and near the many trails is gone, roots of old monarchs are exposed by trampling or trail cutting and there is a tendency to overemphasize the more commercial aspects of its attraction for the thousands who visit it annually. The recent clearing of a twenty-five foot right-of-way for a rural power line through the virgin stand along the bank of Tom's Run was entirely unnecessary, and decidedly unfair to those who contributed to the saving of Cook Forest. Some of the trees removed were in the neighborhood of two hundred years old. There is no reason whatever why this line could not have been located along the highway on the opposite side of the run where only second growth or old field timber would need to have been cut. This is water over the dam, but it is perhaps indicative of a failure to appreciate the urgency of initiating corrective and control measures to preserve the health of the forest.

If the public wants to save Cook Forest for future generations it must be willing to make certain additional sacrifices now. These may be stated in the form of suggestions for avoiding any further unnecessary injury to this area. They are no reflection on any individuals or agencies and they have but this one purpose in mind.

First, the more heavily used sections might be closed to public use for a period of from three to five years. During this time, loads of litter obtained elsewhere might be scattered over the forest floor to help restore the normal biologic activities and so provide much needed nourishment and renewed vigor to the roots and crowns of the old trees. Since the entire forest of six thousand acres—as against the hundred odd acres that would temporarily be closed—is under state control and is readily accessible throughout, recreational use could easily be diverted by means of selective trail improvement and picnicking facilities.

Second, the sensitive virgin timber areas, after the initial period of closure, might be opened for limited periods during each year. A system of staggered trail use would permit some part of each area to be visited at any time. Also, the present restriction on horseback riding through these areas should rigorously be maintained.

Third, no further developments or "improvements" of any kind should be undertaken in and adjacent to the old growth areas. Any appreciable exposure of the stand or concentration of use caused by such improvements would immediately subject the trees to the same forces that would go into operation if a dam were constructed.

These restrictions are not unique or burdensome in any sense. Similar measures have been found necessary and applied in other areas of old-aged timber subjected to excessive use. To the extent they are continuously and conscientiously applied, the aesthetic and scientific values of Cook Forest will endure for the benefit of at least the next two generations.

NATIONAL PARKS MAGAZINE
FORMERLY NATIONAL PARKS BULLETIN

UPON the departure of Lieutenant Edward B. Ballard from the executive and editorial desk of the National Parks Association to serve in the Army, he was replaced with a new secretary-editor, Devereux Butcher, and the twenty years old National Parks Bulletin was changed to a National Parks Magazine which was different in every respect except its mission and policy. The National Parks Bulletin under the editorship of Robert Sterling Yard had started early in 1919 as a mimeographed pamphlet and went into print with its fourteenth number on December 22, 1920. It promoted national park standards as adopted by the National Park Service, and defended them when attacked in Congress.

During 1926 and 1928, Mr. Butcher had been a student at the Pennsylvania Academy of Fine Arts. For the next two years he was with the architectural firm of Edwards and Hoffman of Philadelphia, and studied design at the T Square Club. Then he wandered west for a couple of years, and was captivated with the national parks.

After that he took up drawing, writing and photography with the National Audubon Society, Pennsylvania Forestry Association, American Nature Association, National Parks Association, American Forestry Association, and others.

Then came the war, and the National Parks Association asked him to take the place that Mr. Ballard was vacating. This he accepted as he had adopted the association's principles and many of its ideas as his own, and realized the association's difficulty in finding a capable executive to serve in time of war.

The Last Stand

BY ALDO LEOPOLD

SOMETIME in 1943 or 1944 an axe will bite into the snowy sapwood of a giant maple. On the other side of the same tree a crosscut saw will talk softly, spewing sweet sawdust into the snow with each repetitious syllable. Then the giant will lean, groan, and crash to earth: the last merchantable tree of the last merchantable forty of the last virgin hardwood forest of any size in the Lake States.

With this tree will fall the end of an epoch.

There will be an end of cheap, abundant, high-quality sugar maple and yellow birch for floors and furniture. We shall make shift with inferior stuff, or with synthetic substitutes.

There will be an end of cathedral aisles to echo the hermit thrush, or to awe the intruder. There will be an end of hardwood wilderness large enough for a few day's skiing or hiking without crossing a road. The forest primeval, in this region, will henceforward be a figure of speech.

There will be an end of the pious hope that America has learned from her mistakes in private forest exploitation. Each error, it appears, must continue to its bitter end; conservation must wait until there is little or nothing to conserve.

Finally, there will be an end of the best schoolroom for foresters to learn what remains to be learned about hardwood forestry: the mature hardwood forest. We know little, and we understand only part of what we know.

This last stand of the northern hardwoods is in the Porcupine Mountain region of the Upper Peninsula of Michigan. Fifty years ago northern hardwoods covered 7,000,000 acres in the Lake States. Five years ago the main remnant in the Porcupine region still comprised 170,000 acres. By 1941 this had shrunk to 140,000 acres. Last winter's cuttings were extra large due to war demand. At the present rate of cutting, only stands too rocky or poor to repay the operator have much chance to outlive the next two years. After that fires are likely to polish up the slashings, leaving a nice pile of brushy rocks as a monument to our generation.

There are, of course, odd bits of uncut hardwoods left elsewhere. The largest bit (10,000 acres) is owned by a private club, and is kept to look at. It is ironical that this club may in the end outscore the combined efforts of the Congress of the United States, the United States Forest Service, the Sovereign State of Michigan and the mighty lumber industry as a conserver of virgin forest.

The sugar maple is as American as the rail fence or the Kentucky rifle. Generations have been rocked in maple cradles, clothed from maple spinning wheels, and fed with maple-sweetened cakes served on maple tables before maple fires. Yet the demise of the maple forest brings us less regret than the demise of an old tire. Like the shrew who burrows in maple woods, we take our environment for granted while it lasts. Unlike the shrew, we make shift with substitutes. The

GLIMPSE OF THE PORCUPINE MOUNTAINS, LAST OF THE FOREST PRIMEVAL. STREAM FLOWS THROUGH OTTAWA NATIONAL FOREST INTO LAKE OF THE CLOUDS.

Photograph by Rexford Starling

poorest is the European "Norway maple," a colorless fast-growing tree persistently used by misguided suburbanites to kill lawns. Wisconsin planted Norway maples to shade its capitol. No governor and no citizen has protested this affront to the peace and dignity of the state.

Maple boards, like maple shade, take time to grow. We have lots of prospective maple lumber in second-growth stands. It is doubtful whether these regrowths will ever achieve the quality or volume of the original stands, first because we shall lack the patience to wait for them to mature; secondly because the maple forest is one of the most highly organized communities on earth; hence slashing likely injures its future capacity to produce.

Few laymen realize that the penalties of violence to a forest may far outlast its visible evidence. I know a hardwood forest called the Spessart, covering a mountain on the north flank of the Alps. Half of it has sustained cuttings since 1605, but was never slashed. The other half was slashed during the 1600's, but has been under intensive forestry during the last 150 years. Despite this rigid protection, the old slashing now produces only mediocre pine, while the unslashed portion grows the finest cabinet oak in the world; one of those oaks fetches a higher price than a whole acre of the old slashings. On the old slashings the litter accumulates without rotting, stumps and limbs disappear slowly, natural reproduction is slow. On the unslashed portion litter disappears as it falls, stumps and limbs rot at once, natural reproduction is automatic. Foresters attribute the inferior performance of the old slashing to its depleted microflora, meaning that underground community of bacteria, molds, fungi, insects, and burrowing mammals which constitute half the environment of a tree.

The existence of the term microflora implies, to the layman, that science knows all the citizens of the underground community, and is able to push them around at will. As a matter of fact, science knows little more than that the community exists, and that it is important. In a few simple communities like alfalfa, science knows how to add certain bacteria to make the plants grow. In a complex forest, science knows only that it is best to let well enough alone.

But industry doesn't know this. I fear that the present mistreatment of the northern hardwoods may be pondered more seriously in 2042 than in 1942. Industries wince with pain when fixers and planners lay violent hands on their highly organized economic community, yet these same industries fix their forests to death with never a flicker of recognition that the same principle is involved. In neither case do we understand all the intricacies of internal adjustment. Communities are like clocks, they tick best while possessed of all their cogs and wheels.

While the northern hardwood forest, like the Spessart, is injured by violence, it is known to stand up under gentle intelligent use to an extraordinary degree. You can cut a third of the volume of a two hundred-year old stand and come back every twenty years and take as much again. The reason inheres in the extreme shade-tolerance of the sugar maple and its associated species. Under each mature veteran stand a dozen striplings, full-height and ready to lay on wood the year after the felled veteran bequeaths to them his place in the sun. This method of quick-turnover utilization is called selective logging. Its technology has been fully explored by the research branch of the Forest Service. It differs from slash logging in that the mature trees are cut periodically instead of simultaneously, and the striplings are left to grow instead of to burn in the next fire.

How has industry, with its ear ever cocked for new technology, received this innovation? The answer is written on the face of the hills. Industry, with the notable exception of a half-dozen companies, is slashing as usual. The reason given is that most mills are so nearly cut out anyhow that they cannot await the deferred returns of selective logging; they prefer to die quickly in their accustomed shower of sawdust, rather than to live forever on a reduced annual budget of boards.

One is apt to make the error of assuming that a corporation possesses the attributes of a prudent person. It may not. It is a new species of animal, created by mutation, with a morphology of its own and a behavior pattern which will unfold with time. One can only say that its behavior pattern as an owner of forests is so far not very prudent.

Years ago, when the green robe of the Porcupines still spread over much of upper Michigan, bills were introduced in Congress to buy the area as a national forest. At that time, the proceeds from selective logging would have paid for the land, and left the growing forest to boot. Nothing was done.

Today, when the green robe of the Porcupines has shrunk to the dimensions of a barely respectable necktie, bills are still before Congress. I suppose Congress hesitates to buy, fearing catcalls from patriotic constituents who assume that all internal problems can wait. Most of them doubtless can and should, but not this one. The war will surely outlast this remnant of forest.

I doubt whether public acquisition, as a means of assuring the national timber supply, is a satisfactory substitute for forestry practice by private owners. The job is too big. When government takes over a small area for decent use, it aims to educate by example, but I fear it also generates a false assurance that things are on the mend. In any event the Porcupine necktie is now too small to be of any consequence as a source of timber. But the Porcupine necktie is more than timber; it is a symbol. It portrays a chapter in national history which we should not be allowed to forget. When we abolish the last sample of the Great Uncut, we are, in a sense, burning books. I am convinced that most Americans of the new generation have no idea what a decent forest looks like. The only way to tell them is to show them. To preserve a remnant of decent forest for public education is surely a proper function of government, regardless of one's views on the moot question of large-scale timber production. Moreover, the Porcupines offer the only steep topography available to the public in the snowbelt of the Lake States; they have a future as a ski area, provided they are not further denuded. The necktie is worth keeping for this purpose alone.

I would like to see the remnant of uncut timber in and around the Porcupines (about 100,000 acres) acquired and preserved as an act of national contrition, as the visible reminder of an unsolved problem, and as an educational exhibit. I would like to see this remnant kept roadless, axeless, hotelless, and open only to ski or foot travel. The mere existence of such a token-forest might hasten the day when the green robe again extends over the Lake States, and when the cutting and using of mature timber becomes an act of normal land-cropping, rather than an act of land-pillage.—*From Outdoor America, by permission.*

Quetico-Superior Wilderness International and Unique

Its Incomparable Primitive Lakes and Forests Must Be Preserved

BY SIG OLSON

Photographs by the Author

ALONG the northeastern Minnesota-Ontario border lies a wilderness lake region comprising the finest canoe country on the continent. Other areas have their lakes and rivers and forests but here alone seems to have occurred that ideal combination of physical features that makes the area superb from the standpoint of the canoeist.

The lakes and rivers are beautiful with their rugged glaciated shores and the campsites beneath the white and red pines seem to be especially created for enjoyment. The country is rich in fish and game; the portages, those all important trails to the wilderness traveler, are short and often lovely. Waterways penetrate to the utmost recesses and it is possible to travel for weeks or months without camping on the same spot twice.

Here is a part of the old wilderness and travel is still by the ancient method of the Hudson's Bay Voyageurs, pack and canoe. Roads are only along the fringes of the real canoe country and it is still possible to get away from the roar of traffic and the smell of gasoline. Within a day's travel of such great urban centers as Chicago, you can leave one night and on the next be encamped thirty miles from the end of the railroad where the only sounds are the calling of the loons and where the world of industry seems as far removed as the moon.

Americans by the thousands have come to know the Quetico-Superior canoe country and have come to love it as a sanctuary from the crowded, noisy civilization of their towns and cities and for the chance it offers to live a life of spiritual freedom and joyous adventure.

They have discovered that a cruise through Quetico Provin-

CROOKED LAKE AT PICTURED ROCKS

UNLOGGED SHORES OF CROOKED LAKE

cial Park or the Superior National Forest is much more than just another camping trip, that it is really a way of life, that it makes little difference on one of those trips if they catch fish, or see game or make so many miles by canoe; the important thing is that for a week or a month they live the life of the voyageur and know the true meaning of peace and the joys of solitude.

One reason this area has come to mean much to the people of the United States is that it is open to anyone, rich and poor, that it is possible to enjoy a wilderness vacation without great expense, the only requisite being a love of the out-of-doors and willingness to paddle and pack and live simply.

Most of these modern voyageurs go in without guides and meet the problems of the wilderness in their own way and perhaps enjoy it more because they are actually on their own. The Boy Scouts and other organizations of young people have discovered it and camps scattered throughout the middle west now count a canoe trip as a regular part of each summer's program.

Countless young men, and women too, whose salaries do not permit expensive resort vacations have discovered the canoe country. They slip their canoes into any one of the dozens of starting places and disappear into the wilds. After a week or two they come out hard and brown and happy, to carry with them back to the cities memories of the wilderness.

This strip of country lying along some one hundred fifty to two hundred miles of the international border between Lake Superior and Rainy Lake just this side of Lake of the Woods has come to mean a great deal as a recreational area and is destined to mean more and more as wilderness lake country becomes increasingly rare. Here is a vacationland that really belongs to the people, the kind of an area that will and can contribute to the happiness and welfare of all.

That is perhaps what President Theodore Roosevelt sensed when in 1909 he set aside the lakes south of the border as the Superior National Forest and that, too, must have been what the Province of Ontario saw when at the same time it set aside Quetico Provincial Park immediately to the north.

Since that time, now thirty-three years ago, the area has become internationally famous and like most widely heralded regions it has been the subject of constant exploitation by many diverse agencies. In spite of the fact that its great recreational value was recognized, the old pioneering instinct of the Americans forged ahead determined to include in its story of development and industrialization this last remaining strip of wilderness.

Great corporations, concerned with power, minerals and timber, eyed the still comparatively virgin area and hoped to make capital out of it. Private resort operators cried loudly for new roads to open up the beautiful interior lakes. Chambers of Commerce, unable to see the value of retaining it as a wilderness, ballyhooed the rights of all men to see the wilds by automobile. And in later years aviation enthusiasts have looked forward to the day when planes will be dropping fishermen in every lake.

To those who knew the old Quetico-Superior wilderness and who were willing to work as of old to reach the quiet stretches of the inland lakes, this massing of the forces of exploitation seemed like the voice of doom. It seemed impossible for them to believe that those peaceful waterways which since the days of the voyageurs had been undisturbed by human development were at last to change. Twenty years ago the signs were unmistakable and each time they paddled through the old favorite routes they wondered how long it would be.

Then in September of 1925, E. W. Backus of Minneapolis, Minnesota, a power and timber magnate of the old school, proposed that the Rainy River basin covering most of the Quetico-Superior watershed be dammed for the purpose of furnishing additional power for his pulp mills at the end of Rainy Lake. Seven great storage dams were to be built at the outlets of some of the largest and most beautiful of the border lakes, raising water levels high enough to flood all shores and islands and ruin much of the timber.

At first the country was stunned at the magnitude of the plan and at the audacity of a man who could suggest that he be given permission to ruin a beautiful recreational area for his own selfish purposes. Those who knew the Quetico-Superior wondered where to turn to combat the great wealth and power of a great corporation such as E. W. Backus represented.

It was then that the Quetico-Superior Council was born, an international organization of men and women devoted to the salvation of the canoe country and primarily the defeat of the Backus plan. At an International Forestry Conference held at Duluth, Minnesota, under the auspices of the Minnesota Conservation Council on November 29, 1927, the following committee was chosen to draft and perfect the organization:

Frank B. Hubachek and William G. Dorr of the Minnesota Conservation Council.

Arthur Hawkes of Toronto, Canada.

Jules Preudhomme of Winnipeg, Canada.

James H. Harper, Fred Vibert and Rollo N. Chaffee of the Minnesota Arrowhead Association.

Seth E. Gordon of the Izaak Walton League.

A. L. Kaupanger and Harry Denny of the Minnesota Division of the Izaak Walton League.

Ernest C. Oberholtzer of the Rainy Lake Association.

J. F. Sutherland of the American Legion.

Sam G. Anderson of the Minnesota Game Protective Association.

Doctor Nellie W. Nelson and Mrs. Willard Bayliss of the State Federation of Women's Clubs.

J. F. Reed of the Minnesota Farm Bureau Federation.

Under the inspired leadership of Ernest Oberholtzer, President of the Council, the fight went on, and in spite of powerful and ruthless opposition the conservation-minded or-

ganizations of the entire country rallied to its support. The Izaak Walton League, under the presidency of such conservation champions as Doctor Henry Baldwin Ward, threw in its great weight and national influence. The battle being waged against tremendous odds captivated the imaginations of all those who saw that the very existence of a last beautiful wilderness was at stake. Before long, dozens of organizations and their leaders had pledged their support. A complete listing of all those who were in on that fight would read like a Who's Who of Conservation.

Against such an array of wilderness devotees even the millions of Backus stood little chance, and his plan of creating a vast power reservoir out of the Rainy Lake watershed was overwhelmingly defeated.

Never before had such publicity been given the area and its problems and never before had a group of devoted people fought so valiantly and successfully for the preservation of a region from unnecessary exploitation. As an outgrowth of this original crusade, a great idea took shape — the dream of a Quetico-Superior International Forest to be dedicated to the war dead of both Canada and the United States, to those men who had fought to preserve the principles of liberty and democracy in the last war.

Briefly the plan was to create such an international area by treaty between the United States Government and the Dominion of Canada. There was to be no loss of jurisdiction by either agency and the area was to be managed as heretofore by the Forest Services of both countries aided by an international advisory board composed of forest and biological experts.

Under this plan neither the Province or the United States would forbid reasonable utilization of forest products or wildlife and all resources would be restored as rapidly as possible and managed for permanence and maximum natural yield. Wilderness areas would be set aside free from roads and human occupancy and, by careful zoning, the area would make ample provision for the retention of wilderness values in the interior lake regions while allowing resort and other private developments along existing roads outside the wilderness canoe routes.

Let us recall here the words of Lawrence J. Burpee of the International Joint Commission: "What the project seeks above all is to preserve for public enjoyment, as nearly as possible in a primitive state, the lakes and streams of the wilderness area and all of their natural features including rapids, waterfalls, beaches, islands and all wooded shores, while at the same time utilizing the remainder as wisely as possible for greatest public good."

For Ontario the consummation of such a treaty would have been very simple, as it controlled all of the lands involved and could act freely, but for the United States it meant embarking immediately upon an extensive acquisition program of private lands. This has gone on ever since, until today, instead of the million-acre forest the Superior used to be, it now covers 3,725,849 acres and actually does extend from the Pigeon River on Lake Superior to Rainy Lake one hundred fifty miles to the west.

Both federal and state governments have adopted laws (the Shipstead Newton Nolan Law of 1930) forbidding the logging of wooded shores and the further damming of lakes and streams on the Minnesota side of the border. In addition, a roadless area of a million acres has been created and some of the finest remaining tracts of original pine are being set aside intact for scientific and recreational purposes.

For many years the proponents of the plan hoped that with the splendid cooperation of the United States Forest Service it would be possible for the treaty to be completed, but local agencies, hesitant at losing control of the area, power and lumber concerns apprehensive of possible tying up of resources have fought it bitterly, have organized powerful lobbies to thwart the growing acquisition program and federal control and have done everything possible to discredit the sponsors of the International Forest plan and the idea itself. The recent refusal of the Conservation Department of Minnesota to permit the acquisition of federal lands in the Kabetogama and Grand Portage areas is evidence that the lumber interests of the state are still using their influence to keep certain strategic sections under their control. Commissioner William L. Strunk has raised the scarehead of loss of states rights and jurisdiction and has painted a picture of the vicious effects of federal control and the loss to Minnesota of part of its natural heritage.

While the people as a whole and all conservation organizations are entirely in sympathy with the consolidation of federal purchase units, the old ogre of State Versus Federal Rights is always brought into the picture as soon as certain politically powerful groups see the possibilities of exploitation slipping from them.

In spite of many disappointments and in the face of tremendous obstacles, the Quetico-Superior Council and the Izaak Walton League have fought on hoping that in time victory would be theirs.

In 1934 President Roosevelt, who had become greatly interested in the idea of a Quetico-Superior International Forest as a peace memorial, created the Quetico-Superior Committee whose function was to work toward the consummation of a treaty with Canada.

Ernest Oberholtzer, who had carried on the fight so relentlessly, was made president of the Committee, and with him were appointed four men who had worked unceasingly for the cause since its inception: Robert Marshall, founder of the Wilderness Society, William Zimmerman, Jr., Assistant Commissioner of Indian Affairs, Charles Kelly of Chicago and Sewell Tyng of New York, both prominent attorneys. Handicapped by lack of funds, this committee has worked hard and faithfully and has never failed to take action when the lake country was threatened.

Typical of their constant vigilance was their fight to prevent the Minnesota Highway Department from forcing a high-

ENTRANCE TO MOOSE BAY

way through the Grand Portage Indian Reservation on the north shore of Lake Superior, not to mention innumerable other battles such as the Gabbro Lake power project and others.

With the birth of the Wilderness Society under the leadership of Bob Marshall and a roster of wilderness champions who had fought on many battle fronts of the continent and including such names as Robert Sterling Yard, Aldo Leopold, C. C. Adams, Shirley Allen and John Collier, another fearless group of fighters rallied to the support of the Quetico-Superior plan.

I made a canoe trip through the region with Bob Marshall shortly after the new organization had been perfected and knew long before we had made the last portage that in him the lake wilderness had found a new champion. Upon his return, he swung into the battle with all of his dynamic energy and was directly responsible for the creation of the Basswood Roadless Area in the heart of the canoe country of the Superior. In countless other ways Bob made his influence felt and during the short time remaining to him he contributed greatly toward making the lake wilderness inviolate.

GARDINERS BAY

An attempt last winter to force a road into the Basswood Lake region was blocked effectively simply because Bob had had foresight enough to anticipate such an eventuality. He would have been thrilled could he have listened in on the hearing just a few months ago when the road petitioners were told by the United States Forest Service that it could under no circumstances tolerate the construction of a roadway into the Basswood Roadless Area. Such a stand would have been impossible had not this strategic area been included in the greater Superior Roadless Area Reservation.

Bob Marshall's passing was a great loss to the Quetico-Superior movement, as it was to every section of the continent where wilderness values were at stake.

With three great organizations now rallied to the cause of the Quetico-Superior plan, the Quetico-Superior Council, the Izaak Walton League of America and the Wilderness Society, as well as the majority of all important conservation groups in the United States, one would think the battle was over and victory in sight, but in spite of widespread support constant vigilance was necessary, and not a year or a month went by without the need of refighting battles both old and new.

Typical of the constant fight going on since 1927 was the Hayden Amendment to the Department of Interior Appropriation Bill recently passed by Congress. This rider was inserted to force Secretary Ickes to grant the State of Minnesota right of way across the Grand Portage Indian Reservation, a possibility the Quetico-Superior plan had fought bitterly for many years.

Now with the coming of the war new problems have arisen, especially on the Quetico side of the border, and the stately stands of timber that once graced its waterways are being so rapidly depleted that Americans are beginning to wonder if there will be anything left by the time the treaty is ready for signing.

For a long time, Americans coming in from this side of the border were of the opinion that the Quetico as a forest preserve would never be cut. They often pointed out the fine stands of timber on the Canadian side and contrasted them with the cutover second growth so often in evidence on the Minnesota side. During those years they actually came to believe that Canadians were far ahead of us in far-sighted management practice.

In the last decade, however, this illusion has been gradually shattered for they have seen the steady encroachment of logging operations along the northern and western borders of the park. At first they paid little heed, not knowing the exact park boundaries and feeling confident that the cutting would never reach the beautiful interior of the Quetico, but then, to their dismay, they saw the operations pass the far boundaries and move into such beautiful lakes as La Croix, Sturgeon, Russell, the Malign River, Beaverhouse, Quetico Lake, Bachewong, Jean, and countless others that they had cruised in the old days, most of these waterways, with the exception of those directly on the border, logged in the same way that the timber butchers of the past had logged off our own lakes.

Americans saw these last beautiful stands of timber, red and white pines two and three hundred years old, stripped to the shorelines. They saw islands denuded, lakes flooded, campsites destroyed and the unsightly debris of logging left behind. The inevitable fires came in destroying completely the most beautiful canoe routes of the old Quetico for centuries to come.

They saw portages that had been in use since the days of the Indian and Voyageur used as skidways and tractor roads and wherever fine stands of trees occurred, even though certain regulations were supposedly in effect they saw them cut and stripped to the water's edge. It made them sick at heart to watch what was happening but somehow it never occurred to them that this same devastation in the northwestern quarter

of the Quetico could ever touch the heart of the region itself, the part that most of them used in their travels, the winding mazes of Crooked Lake, Basswood and the areas immediately north of them both.

Then came the fall of 1941 and suddenly twelve hundred men with modern mechanized equipment moved into the great stands of old pine on the shores of Crooked Lake on the border, set up their camps and began to work. Bulldozers, tractors, mechanized saws roared their way through the country, and within two months much of the interior was laid waste. No shoreline cutting for three hundred feet was permitted on the border but no plan was made for preserving the inland lakes which make up the real canoe country.

The militant executive secretary of the Izaak Walton League, Kenneth A. Reid, acting upon a report of the writer on an airplane reconnaissance of the Crooked Lake area, and with the cooperation of Charley Kelly of the President's Quetico-Superior Committee, arranged for an immediate conference with Toronto officials and secured a promise of adequate restrictions as well as an invitation for a conference in January.

On January 9 a committee composed of Kenneth A. Reid of the Izaak Walton League, William Zimmerman, Jr., representing the Department of Interior, the Wilderness Society and the President's Committee, Jay Price, representing the United States Forest Service and the President's Committee, and Sig Olson, representing the Executive Committee of the Quetico-Superior Council, met with the Honorable H. O. Hipel, Minister of Lands and Forests, Mr. Frank H. McDougal, Deputy Minister, Mr. W. I. Cram, Canadian Regional Forester, and others at Toronto, laid the case before them and explained how much the Quetico meant to the people of the United States and how necessary it was in view of the proposed treaty that this last untouched section of the Quetico be preserved for posterity.

The Canadians acted at once and immediately invoked shoreline cutting restrictions on all the inland routes and portages and promised a similar program of management for all future cutting operations in the park.

Then in March of this year the mechanized equipment was moved into the Basswood Lake area, the hub of the Quetico-Superior canoe country, and there it sits today in a great warehouse of newly-felled pine logs on the timbered shore of Canadian Point waiting for the freeze-up and the logging of the last great block of pine in the Quetico.

The swift cooperation of the Canadians was greatly encouraging, but it is the hope of Americans that they will go one step further and decide to make an inviolate preserve of the last timber stand in the area and save for posterity one last bit of the lake country so that canoeists of the future can see the kind of country that once gladdened the hearts of the old voyageurs.

Negotiations are now in progress and there is some hope that this can be brought about. If Canada in spite of the war and its needs sees fit to leave intact this final museum piece of the old Quetico-Superior lakeland, then America will be forever grateful, and when the treaty is finally consummated that last stand will be a living memorial to the spirit of friendship and understanding that today gives us common battle ground.

McINTYRE LAKE

Canadians and Americans have for generations seen eye to eye on many things affecting both countries. Now more than ever before are they realizing that cooperation and mutual trust are necessary. What better way could this old friendship be preserved than by having the Province of Ontario assure us that the Quetico lake region will be kept forever as a great international playground for both countries.

This year of 1942, when both countries are engaged in a supreme struggle to preserve their way of life, also happens to mark the one hundredth anniversary of the Webster-Ashburton Treaty which guaranteed to citizens of both Canada and the United States the right to use international portages on both sides of the border and designated the approximate locations of that border between them.

For a full hundred years peaceful relations have existed and it has in truth become the only border in the world unguarded by bayonets. Would it not be a fitting conclusion to these hundred years of peaceful cooperation to cement our friendship with a new treaty setting aside, as a monument to international goodwill, a wilderness lakeland astride that border, a land where the citizens of both countries might come forever to renew and refresh their souls in a setting of wilderness peace and beauty, a Quetico-Superior International Forest dedicated to the happiness and welfare of all.

THE LAST PORTAGE

Concerning the Wilderness Society

1840 Mintwood Place, Washington, D. C.

Begun, to meet emergency, January 21, 1935. Incorporated April 24, 1937.

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OBJECTS

(1) To enlist the American people in the preservation of the American wilderness.

(2) To spread the conception that the wilderness is a valuable natural resource of the people and should be conserved as such.

(3) To promote nation-wide cooperation in resisting the invasion of such wilderness by the sights, sounds and other influences of civilization, including (a) routes which can be used for mechanized transportation, (b) all commercial developments, and (c) those non-commercial improvements and influences which clash seriously with the primeval environment.

The whole makes for permanent national sentiment favoring wilderness preservation and against unnecessary public highways. No additional charge for publications.

LOOK BACKWARD, THEN FORWARD

It was to meet the emergency of a sudden excessively dangerous decline in America's unequalled wilderness that this movement was undertaken in 1935 at their own expense by eight men engaged in land use occupations.

IF you believe in the principles we advocate and IF you agree to advocate them earnestly in your own neighborhood among its associations and your friends, we shall be glad to accept your membership at one dollar a year including all our publications.